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STAAS & HALSEY LLP
SUITE 700
1201 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

EXAMINER

TRAN, TRANG U

ART UNIT PAPER NUMBER

2614

DATE MAILED: 07/01/2003

29

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/163,977

Applicant(s)

PARK, JU-HA

Examiner

Trang U. Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 April 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed April 11, 2003 have been fully considered but they are not persuasive.

In re page 4-6, applicant argues that Cuccia does not disclose or suggest a method of acquiring program guide information for channels, comprising "...acquiring the program guide information for the received program received on the preferential channel; and acquiring the remaining program guide information ... for other channels ... wherein the remaining program guide information is acquired according to a prioritized or preferential channel search" as recited in independent claim 1, and similarly recited in independent claims 3 and 28 of Applicant's application because Cuccia appears to disclose a method of updating EPG information, including successively (1,2,3,4,...n) acquiring the EPG information for all accessible channels, storing them as a compound EPG in a storage unit, and successively (1,2,3,4,...n) updating the compound EPG, for example, every 24 hour period, while the TV-set is turned off or in a stand-by mode.

In response, the examiner respectfully disagrees. As recognized by applicant, Cuccia discloses in col. 5, lines 24-56 that "In an initial step 2000 **the value '1' is assigned to a variable Tr**, indicating a transport stream number. Another variable **TrMax** indicates the number of transport stream available. When the value of Tr is smaller than or equal to TrMax, the compound EPG has to be updated with EPG information extracted from the transport stream with number between and including Tr

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and TrMax...**by scanning all available transport streams**...taking the last value of Tr as a starting point". From the above passage, it is clear that **the claimed preferential channel is anticipated by the Tr channel of Cuccia and the claimed prioritized or preferential channel search is anticipated by the scanning all available transport streams** of Cuccia. Thus, Cuccia does indeed disclose the claimed "acquiring the program guide information for the received program received on the preferential channel (Tr of Cuccia); and acquiring the remaining program guide information ... for other channels ... wherein the remaining program guide information is acquired according to a prioritized or preferential channel search (scanning all available transport streams of Cuccia) as recited in claims 1, 3, and 28.

In re page 6, applicant argues that, in other works, it appears that Cuccia does not disclose or suggest, for example, "determining the sequence of accessing channels by proximity of channels to the channel tuned ...," as recited in Applicant's claim 7, "searching the channels in upward or downward from the channels tuned...," as recited in Applicant's claim 10, "searching the channels in order of priority according to a probability distribution of channels," as recited in Applicant's claim 11, or "searching of accessible channels...based upon a commend received, the detected guide information, and a relation to the tuned channel," as recited in Applicant's claim 28.

In response, the examiner respectfully disagrees. As discussed above with respect to claims 1, 3, and 28 above, the claimed "determining the sequence of accessing channels by proximity of channels to the channel tuned ..." as recited in Applicant's claim 7 is anticipated by **the scanning of all available transport streams**

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disclosed in col. 5, lines 24-56 of Cuccia, the claimed “searching the channels in upward or downward from the channels tuned...” as recited in Applicant’s claim 10 is also anticipated by **the scanning of all available transport streams disclosed in col. 5, lines 24-56 of Cuccia**, the claimed “searching the channels in order of priority according to a probability distribution of channels” as recited in Applicant’s claim 11 is also anticipated by **the scanning of all available transport streams disclosed in col. 5, lines 24-56 of Cuccia**, or the claimed “searching of accessible channels...based upon a commend received, the detected guide information, and a relation to the tuned channel” as recited in Applicant’s claim 28 is anticipated by **the scanning of all available transport streams disclosed in col. 5, lines 24-56 of Cuccia**.

In re page 6, applicant argues that Cuccia also does not disclose or suggest a program guide method comprising “writing and displaying a program list including program guide information guide information of channels tuned before a program guide commend is executed,...acquiring program guide information being broadcast...for accessible channels in a background operation while the program list is referenced to...,” as recited in Applicant’s independent claim 12 and similarly recited in Applicant’s independent claim 19.

In response, the examiner respectfully disagrees. Cuccia discloses in col. 4, lines 50-52 that **“Upon a predetermined user command, the compound EPG is retrieved from a storage means 120 and displayed on the screen 108”** and in col. 24-56 the capability of **scanning of all available transport streams**. From the above passages, the claimed “writing and displaying a program list including program guide information

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guide information of channels tuned before a program guide commend is executed,...acquiring program guide information being broadcast...for accessible channels in a background operation while the program list is referenced to...,” as recited in Applicant’s independent claims 12 and 19 is anticipated by the capabilities to displaying the compound EPG from storage means 120 based on a predetermined user command and scanning of all available transport streams of Cuccia because **the user based on a predetermined user command can display the compound EPG from the storage means during the scanning of all available transport streams.**

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-3, 5-10, 12-15, 19-23 and 26-29 are rejected under 35 U.S.C. 102(e) as being anticipated by Cuccia (US Patent No. 6,337,719 B1).

In considering claim 1, Cuccia discloses all the claimed subject matter, note 1) the claimed receiving the program guide information and a program on a preferential channel of the channels, and acquiring the program guide information for the received program received on the preferential channel is met by the antenna 101 (Fig. 1, col. 3, lines 23-42), and the claimed comprising acquiring the remaining program guide

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information for other channels by scanning the other channels to acquire the remaining program guide information from other program guide information contained in ones of the other channels while the program being received is not displayed, wherein the remaining program guide information is acquired according to a prioritized or preferential channel search is met by the tuner 103 which is free to scan the signals for the EPG information when the TV-set in stand-by mode (Fig. 1, col. 4, line 11 to col. 5, line 19).

In considering claim 2, the claimed said acquiring the program guide information for each channel comprises obtaining the program guide information of the accessible channels by a tuner while the program received by the tuner is not displayed is met by the tuner 103 which is free to scan the signals for the EPG information when the TV-set in stand-by mode (Fig. 1, col. 4, line 11 to col. 5, line 19).

In considering claim 3, Cuccia discloses all claimed subject matter, note 1) the claimed acquiring program guide information of accessible channels in response to the program guide command, wherein the program guide information is acquired according to a prioritized or preferential channel search is met by the micro processor 118 (Fig. 1, col. 3, line 55 to col. 4, line 63), 2) the claimed storing the acquired program guide information is met by the digital memory 120 (Fig. 1, col. 3, line 55 to col. 4, line 63), 3) the claimed writing a program list on the basis of the stored program guide information is met by the digital memory 120 (Fig. 1, col. 3, line 55 to col. 4, line 63), 4) the claimed displaying the written program list to the user in response to the program guide

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command is met by the television screen 108 and the compound EPG (col. 3, lines 55-64 and col. 5, lines 58-65).

In considering claim 5, the claimed further comprising determining whether the program guide information is effective by comparing a current time to an effective period of stored program guide information and proceeding to said writing the program list when the stored program guide information is effective, before said acquiring the program guide information is met by the timer 119 or the flow chart of Fig. 2 (Figs. 1 and 2, col. 4, lines 36-55 and col. 5, lines 20-57).

In considering claim 6, Cuccia discloses all claimed subject matter, note 1) the claimed writing and displaying a program list including the program guide information of channels tuned before a program guide command is executed from the stored program guide information is met by the television screen 108 and the compound EPG (col. 3, lines 55-64 and col. 5, lines 58-65), 2) the claimed acquiring the program guide information for each channel by searching for the accessible channels in a background operation while the program list is referred to is met by the tuner 103 which is free to scan the signals for the EPG information when the TV-set in stand-by mode (Fig. 1, col. 4, line 11 to col. 5, line 19).

In considering claim 7, the claimed said acquiring the program guide information comprises determining the sequence of accessing channels by proximity of channels to the channel tuned before the program guide command is executed is met by the tuner 103 which is free to scan the signals for the EPG information when the TV-set in stand-

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by mode and the compound EPG (Fig. 1, col. 4, line 11 to col. 5, line 19 and col. 5, lines 58-65).

In considering claim 8, the claimed said acquiring the program guide information comprises determining the order of priority of channels having the same proximity to the channel tuned before the program guide command is executed according to a channel up/down command input before corresponding channels are accessed is met by the remote control unit 110 and the compound EPG (Fig. 1, col. 5, lines 1-65).

In considering claim 9, the claimed wherein an upward or downward direction is preferential when no channel up/down command is executed is met by the tuner 103 which is free to scan the signals for the EPG information when the TV-set in stand-by mode and the compound EPG (Fig. 1, col. 4, line 11 to col. 5, line 19 and col. 5, lines 58-65).

In considering claim 10, the claimed said acquiring the program guide information comprises searching channels upward or downward from the channel tuned before the program guide command is executed is met by the tuner 103 which is free to scan the signals for the EPG information when the TV-set in stand-by mode and the compound EPG (Fig. 1, col. 4, line 11 to col. 5, line 19 and col. 5, lines 58-65).

Claim 12 is rejected for the same reason as discussed in claims 3 and 6 and further the claimed rewriting a program list on the basis of the stored program guide information is met by the TV-set updates the EPG information (Fig. 1, col. 4, line 11 to col. 5, line 19 and col. 5, lines 58-65), 5) the claimed displaying the rewritten program

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list to a user is met by the television screen 108 and the compound EPG (col. 3, lines 55-64 and col. 5, lines 58-65).

Claims 13-16 are rejected for the same reason as discussed in claims 7-10, respectively.

In considering claim 19, Cuccia discloses all claimed subject matter, note 1) the claimed a tuner tuning a channel is met by the tuner 103 which is free to scan the signals for the EPG information when the TV-set in stand-by mode (Fig. 1, col. 4, line 11 to col. 5, line 19), 2) the claimed a program guide information detector detecting program guide information introduced via said tuner is met by the micro processor 118 (Fig. 1, col. 3, line 55 to col. 4, line 63), 3) the claimed a memory storing the program guide information for each channel detected by said program guide information detector is met by the digital memory 120 (Fig. 1, col. 3, line 55 to col. 4, line 63), 4) the claimed a key input introducing a user manipulation command such as a program guide command or a channel search command is met by the remote control unit 110 and the compound EPG (Fig. 1, col. 5, lines 1-65), 5) the claimed a microprocessor, in response to the manipulation command input via said key input, that writes a program list based on program guide information stored in said memory and searches for accessible channels by controlling said tuner in a background operation while a user refers to the program list is met by the micro processor 118 (Fig. 1, col. 3, line 55 to col. 5, line 19), 6) the claimed a character signal generator generating a character signal corresponding to the program list written by said microprocessor and providing the character signal to

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a screen is met by the television screen 108 and the compound EPG (col. 3, lines 55-64 and col. 5, lines 58-65).

Claims 20-23 are rejected for the same reason as discussed in claims 7-10, respectively.

In considering claim 26, the claimed wherein the accessible channels include channels accessed by a tuner and channels provided by a line input is met by the tuner and the signal inputs 117 (Fig. 1, col. 4, lines 10-35).

In considering claim 27, the claimed wherein said acquiring the program guide information comprises the step of determining the sequence of accessing channels by proximity of the channels to the channel tuned and by a channel up/down command input just before a channel search is determined is met by the tuner 103 which is free to scan the signals for the EPG information when the TV-set in stand-by mode and the compound EPG (Fig. 1, col. 4, line 11 to col. 5, line 19 and col. 5, lines 58-65).

Claim 28 is rejected for the same reason as discussed in claim 1.

In considering claim 29, the claimed wherein the means for searching searches the accessible channels in a preferential manner is met by the tuner 103 which is free to scan the signals for the EPG information when the TV-set in stand-by mode and the compound EPG (Fig. 1, col. 4, line 11 to col. 5, line 19 and col. 5, lines 58-65).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cuccia (US Patent No. 6,337,719 B1).

In considering claim 4, Cuccia discloses all features of the instant invention as discussed in claims 1 and 3 above, except providing a message indicating that the user must wait until the program list is written. However, the capability of displaying message indicated the user must wait until the program is written is well known and old in the art. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide Cuccia's system with the well known message in order to increase the efficiency system operation in Cuccia.

6. Claims 11, 16-17, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cuccia (US Patent No. 6,337,719 B1) in view of Saitoh (US Patent 5,444,499).

In considering claim 11, Cuccia discloses all the features of the instant invention except for providing further comprising writing a probability distribution of tuned channels, wherein said acquiring the program guide information comprises searching the channels in an order of priority according to a probability distribution of channels. Saitoh teaches that the controller can calculate a probability that channels are to be selected, by accumulating a number of time which the channels are tuned (col. 5, lines 46-62) and searches for the channels in an order of priority according to a probability of tuning by the channels calculated (col. 6, lines 15-38). It would have been obvious to one of ordinary skill in the art at the time of the invention to provide Cuccia's system with the controller as taught in Saitoh in order to obtain the television guide without carrying out cumbersome tuning operations.

In consider claim 16, the claimed wherein said acquiring the guide information comprises searching channels upward or downward from the channel tuned before the program guide command is executed is met by the tuner 103 which is free to scan the signals for the EPG information when the TV-set in stand-by mode and the compound EPG (Fig. 1, col. 4, line 11 to col. 5, line 19 and col. 5, lines 58-65) of Cuccia.

In consider claim 17, the claimed further comprising writing a probability distribution of tuned channels, and wherein the channels are search for in order of priority according to the probability distribution of channels is met by the search of channels base on the priority disclosed in Saitoh, column 6, lines 15-38.

Claim 24 is rejected for the same reason as discussed in claim 11.

7. Claims 18, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cuccia (US Patent No. 6,337,719 B1) in view of Saitoh (US Patent 5,444,499) and further in view of Mugura et al. (US Patent No. 6,243,142 B1).

In consider claim 18, the combination of Cuccia and Saitoh discloses all the limitations of the instant invention as discussed in claims 1, 3 and 11 above, except for providing the claimed wherein said displaying the written program list comprises displaying a message indicating a status of program guide information in response to the program guide information of a corresponding channel not being stored. Mugura et al teach that the broadcast system generates at least one graphic image to indicate a status of these programs, the status including whether a user has selected pay-per-view broadcasts for purchase. The status also includes whether a broadcast system timer has been set to tune to a particular channel program at a designed time, whether a channel program has been set for recording, etc. (col. 2, lines 20-40). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the graphic image to indicate a status of programs as taught by Mugura et

al into the combination of Cuccia and Saitoh's system in order to provide channel selection guides with many options regarding programs that are available for broadcast.

Claim 25 is rejected for the same reason as discussed in claim 18.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Trang U. Tran** whose telephone number is **(703) 305-0090**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **John W. Miller**, can be reached at **(703) 305-4795**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

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Washington, D.C. 20231


or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

TT TT
6/28/03


JOHN MILLER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600